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ABSTRACT

This report is about recent steps undertaken at national and other levels to help schools in the countries of the European Community develop links with industry or the economic world. It draws particularly on examples from the 30 pilot projects that formed part of the European Community's second program on young people's transition from education to adult and working life. Part I examines why links are important. The main purpose is to analyze what use schools (and firms) make of links and what support is needed at local levels to make best use of them. Part II describes the way links contribute to four important functions of schools and education systems: the provision of guidance, the school curriculum, the provision of inservice training for teachers, and the school's role and image in its local community. Part III illustrates how school-industry linking gives rise to new linking structures or services at the local level. Descriptions are provided of various kinds of links as they are used in pilot projects in different countries. Part IV presents a set of recommendations for the successful development of school-industry links in the future. Appendixes include descriptions of transition programs for youth in Germany, United Kingdom, Netherlands, Italy, and Denmark, and a list of contacts for all pilot projects mentioned in the text. (YLB)

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EUROPEAN COMMUNITY

ACTION PROGRAMME

TRANSITION OF
YOUNG PEOPLE
FROM EDUCATION
TO ADULT AND WORKING LIFE

Working Document

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SCHOOL-INDUSTRY LINKS

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Preface

This report is one in a series on the work and results of the 30 pilot projects in the European Community Action Programm on the Transition of young people from education to adult and working life.

The Programme is based on a Resolution of July 1982 by the Council and the Ministers of Education meeting within the Council. The projects, jointly financed by the Commission of the European Communities and national authorities, were set up in 1983 and finished in 1987.

The main themes of the Programme, based on the Resolution, were:

- the development and use of work experience schemes in secondary education;
- the development of equal opportunities for girls and young women;
- the improvement of guidance and counselling and the development of youth information services;
- staff development programmes;
- the development of new forms of assessment and certification;
- the integration of young migrants;
- "education for enterprise";
- schools and social action; the prevention of illiteracy, drop-out, delinquency, drug abuse;
- the development of alternative curricula;
- co-operation and partnership in a local or regional context.

Further information on the Programme and other reports on it published on behalf of the Commission by IFAPLAN can be obtained by writing to the address shown on the cover.

About this report

Most schools in the countries of the European Community do not have links with industry or the economic world. This report is about recent steps, at national and other levels, to help them develop them.

It draws particularly on examples from the 30 pilot projects which took part in the European Community's second programme on young people's transition from education to adult and working life. But it also describes initiatives and schemes outside that programme.

In Part I, the report examines why links are seen as important. The reasons are partly economic, partly educational, and partly social.

The report's main purpose, however, is to analyse what use schools (and firms) make of links; and what support is needed at local level to make best use of them.

Part II of the report describes the way links contribute to four important functions of schools and education systems : the provision of guidance; the school curriculum; the provision of in-service training for teachers; and the school's role, and image, in its local community.

Part III illustrates how school-industry linking gives rise to new linking structures, or services, at the local level. Various kinds of them are described, as used in pilot projects in different countries, and elsewhere.

Finally, a set of recommendations are made, in Part IV, for the successful development of school-industry links in the future. It is hoped that they will be of use to those concerned with an interest in the development of school-industry linking both at national level and at local level, and in the schools themselves.

I. Why school-industry links are important

Many European countries are now engaged in some fundamental re-examination of the historic attitudes of schools to industry, and industry to schools. The common aim is to develop closer co-operation or partnership, between them. The exceptions are the few countries in which industry has always co-operated closely with at least the vocational training sector of the education system. Even in these countries there are now moves to widen this co-operation to include the non-vocational, or general education, schools.

The reasons behind the general push towards such links are mainly economic :

- Short- and medium-term responses to the unemployment crisis are now giving way to longer-term policies; instead of crash schemes to keep young people off the unemployment register, governments are pinning their hopes on longer-term measures designed to increase the efficiency and competitiveness of their economies; in this context, raising the quality of training of the work-force at all levels is seen as increasingly important;

- the decline of major labour-intensive heavy industries all over Europe, in the face of Pacific Basin and Third World competition, and their replacement by new capital-intensive, automated, firms which need less labour, have led governments to put more emphasis on local initiative, and small-scale enterprises, as a source of new jobs;

- the impact of the new technologies in quickening the pace of economic and industrial change is becoming more widely felt, and making it more urgent that secondary schools as well as vocational training institutions keep in touch with industry; and that firms, especially small and medium-sized ones, have good access to re-training facilities;

- the higher levels of qualification which the new technologies call for make it more important than ever to recruit a fair share of the most talented young people into the technical area, and to change the anti-industrial, or anti-business, attitudes which some schools have traditionally reflected.

At the same time, educators have their reasons for wanting to see the gap close, which can be summarized as follows:

- the pressure of youth unemployment, acute in some regions, and particularly for the most disadvantaged groups in them, such as the unqualified and the young immigrants, has strongly influenced many schools. The need to try to reduce the number of the unqualified, i.e. those young people leaving the education system without a marketable vocational qualification, has reinforced the need (already evident to many teachers) to re-think the content, style of teaching, and presentation of courses to young people generally in secondary education. This has led to much more use of the world outside the school, work experience placements, and many other forms of school contact with the working world;

- the pre-vocational content of compulsory education has, as a result, been given much more attention: the vocational dimension, value or relevance, of courses is stressed more than before. The vocational (or "pre-vocational") dimension is interpreted broadly to include such personal qualities as the ability to communicate, self-confidence and creative ability. Providing practical opportunities to experience the world of work, and spend some time in it before leaving school, are also seen to be of great importance in developing these qualities. All these trends create needs for schools to have more access to, and better knowledge of, the economic world in their area.

- in some countries, the idea of schools teaching "enterprise" has been eagerly taken up; its attraction is not only that it offers ways to motivate and reward those not likely to achieve great "academic"

success, but also that it will help generally to change many pupils' attitudes from passive expectation of employment into a more dynamic attitude directed to finding or creating one's own job through an introduction to the world of business, self-employment, and small firms; in some countries, the local economy, and pupils' future place in it, have become themes in secondary school work;

- in the vocational training sector, employment and economic pressures have stimulated schools and teachers to be more outward- and forward-looking, and responsive, especially to the needs of their local firms : established links in specific sectors (metal, textiles, agriculture) have been extended: vocational schools/colleges have become more active in marketing or publicising their training capacity. More part-time training is offered. All this is seen by teachers as contributing, in the short or longer term, to better job prospects for their students.

Then there are also the pressures and concerns of others more broadly concerned with social as well as economic well-being;

- many educators see a long-term, and long-standing, need to open schools of all types, and at all levels, to their local communities, including not just parents and local people but all kinds of creators of wealth, services or jobs in the locality, as well as those concerned with its cultural welfare;

- in the economically hard-hit areas of some countries, the integration of young people into society, and into some form of job, has been treated as a major social challenge. One approach has been to improve opportunities for them by setting up partnerships between all the relevant local economic and social organizations, especially firms and training bodies;

- in countries where industry has traditionally distanced itself from social welfare obligations, there is increasing recognition that

firms have an obligation to contribute to the economic survival and recovery of the local community, and should think and act in a spirit of partnership, rather than "laissez-faire";

- the need to combat misleading images of trade unionism, whether resulting from falling membership in a time of recession, or the advance of new technology, is involving trade unionists, in some countries, in taking a more active part in the world of education.

Schools, firms and local/regional authorities have responded in very many different ways to all these new tasks. A large number of different kinds of initiatives and schemes can be found, linking them together. The next section examines the kinds of activity for which they have been used.

II. Links in action

School-industry links, and linking activities, are not ends in themselves. The point of studying them is not to describe what activities they give rise to, though that may be helpful, if only to clarify what they mean in concrete terms - see Box 1. The purpose, rather, is to see in what way linking activities are used to enrich or extend the roles of the school and its teachers.

The evidence of the pilot projects points to benefits in four different areas, some of which overlap :

- the curriculum : in particular to make subjects in the curriculum more outward-looking and to help pupils' personal development, especially their ability to communicate;

- guidance, to help young people in their personal career decisions;

- staff development, to give teachers more experience of the world outside the school; and

- the community role of the school, i.e. at least its "public relations" and, at best, the positive social and material contribution that schools can make to their local community.

School-industry-linking activities, like other activities which many schools arrange such as residential experience, drama or art activities fields, school trips, visits abroad, and exchanges, can contribute simultaneously to pupils' subject learning, their personal development and the process of guidance. Activities developed through cooperation with industry are, in this sense, an extension of the range of (mainly extra-curriculum) experiences, which many schools succeed in providing.

But many links activities contribute to both the curriculum and the

guidance process. Their special value, in fact, is that they enable guidance work to be more easily, or better, integrated into subject-teaching in the curriculum. Bringing the school nearer the "real world" makes it easier for the individual pupil to perceive her/himself realistically in relation to it. Teaching a subject with emphasis on its implications or applications in the real world, and illustrated from it, make it less necessary for guidance counsellors to provide the student with data about it, as part of "guidance". Links provide opportunities to illustrate the "vocational dimension" of subject learning, not just in technical subjects but in many others also.

Visiting the local mussel-farm or textile factory may be a way to illustrate points in the science syllabus, or in environmental studies, or about the local economy, or about the nature of work; or, if a student is placed there for training, it may be part of a vocational course. All such uses can be found in the Transition Programme projects*.

Links in action — Box 1

The activities which links can be used for include the following :

- simulated business games, role plays, mini-enterprises,
- school conferences on industrial/economic issues and case studies,
- visits to firms, guest-speakers,
- joint use of technical facilities,
- joint projects with a firm,
- contracts for a firm,
- work experience placements; "taster" or more specific; including work-shadowing, i.e. observing work-roles,
- cooperation in curriculum development,
- jointly-organized staff development.

Note : "Industry" is used throughout to cover the world of industry, commerce, services and the small-firms sector, i.e. the "world of work" or the "world of the economy". "Industry" also implies both the social partners, employers and trade unions, and the self-employed**.

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* See also "The world of work as a learning resource"; IFAPLAN, Brussels, December 1986.

** Illustrations of the roles of firms and trade unions can be found in Innovations 37: Schools, firms and trade unions.

1. Curriculum

Linking with industry can contribute to the curriculum in two ways; through collaboration in developing new courses and curricula; and in helping implement them. In the world of vocational training, in many countries, there is a long tradition of cooperation between schools and firms, and between industries and national/regional authorities. But the last few years have seen important developments, in both vocational and general education, schools: the concern to "close the gap" between compulsory education and the outside world has meant that school/college contact with industry has now become much more widespread, and is no longer confined to the vocational training sector.

The most common point of entry, for compulsory education, is the need to provide pupils with some form of introduction to the "world of work", in a realistic, but manageable, way. This is increasingly seen as a necessary part of all pupils' compulsory education. Linking activities not only make individual subjects more realistic or relevant: they make the whole curriculum more outward-looking, and offer excellent opportunities for young people to relate to adults other than their teachers or their family in ways which stimulate and develop their social skills. Various approaches can be seen.

- Introducing a new subject (or additions to existing subjects). The solution adopted in Germany some years ago was the inclusion of 'Arbeitslehre' (Learning about the world of work) in the curriculum of the 40% of pupils who would either leave school at the end of the compulsory period or else go into vocational training. Now, however, there is a strong move to offer "Arbeitslehre" to all pupils as part of their compulsory schooling. The system of links between education and industry at national, regional and local level, for the development and implementation of suitable courses, work experience opportunities, teacher training, and other resources has become well-established in almost all parts of the country. (A fuller account is given in Innovations 38, included in this paper as Annex 1.)

- The cross-curriculum approach. A different solution is now in widespread use in the United Kingdom. Without the school necessarily altering the structure of its curriculum, individual teachers are encouraged to find ways to introduce the world of industry into their teaching. The methods used vary: drawing on illustrative material to support theoretical learning; giving students experience of the world of work; using project work, in school hours as part of the curriculum, or as an extra-curricular activity. The process of introducing the industrial world into the school may be tackled by the school as a whole or by groups of teachers with or without the appointment of a coordinator. In the United Kingdom, the School Curriculum Industry Partnership (SCIP) has developed techniques for helping schools implement this approach, summarized in Innovations 39, at Annex 2.

- The project approach. The introduction of projects, i.e. topic-centred or problem-centred learning situtations, is now common in secondary education, as well as primary education, and provides a natural means for introducing the real world into the world of the school. Probably the greatest advantage of the project concept is that it is essentially inter-disciplinary and inter-subject, and demands the ability to identify the relevance of theoretical knowledge to the solution of actual problems, within resource and time constraints. Projects are often extra-curricular, and outside school hours, particularly in education systems which limit schools' timetable freedom. But even in such systems schools have succeeded in adapting traditional teaching, within the timetable, to include school-based and even off-premises project work, as can be seen in some of the pilot projects in Italy (Empoli, Reggio Calabria, and Sassari).

In vocational training, also, some new forms of linking activities were developed in schools in the pilot projects.

Marketing vocational training — Box 2

Rapid technological change in firms has led to vocational schools and colleges forming new local training partnerships and services, particularly with small and medium enterprises who cannot undertake training themselves. The locally-negotiated curriculum, in vocational training, is a widespread and important development.

In the West Flanders/Limburg project (B 2)* in Belgium, vocational schools, with support from province and national levels, developed a market strategy for their training facilities, and developed and implemented courses in close collaboration with the firms for whom they were designed.

In Greece, the "AGRO" pilot project (GR 14) developed new kinds of courses in vocational training institutes to meet the needs of agricultural cooperatives for managers trained in modern methods. In doing so, it strengthened the local involvement of the training institutes concerned.

Contract services — Box 3

Vocational training institutes and colleges often carry out contract work for local firms in the specialist sector. They may develop new pieces of equipment; manufacture short runs of a product; or carry out an investigation.
In the Italian pilot projects, upper-secondary schools, some in general education and some technical/vocational, organized combined research activities involving groups of volunteer teachers and students, in work for local firms on a contract basis. The "Programme 2050" Youth Cooperative in Modena was commissioned by the city's Chamber of Commerce to produce a data-base of their firms and their economic characteristics, and to help draft the Chamber's quarterly economic survey by contributing its own analysis of the data.

Equipment sharing — Box 4

Firms may locate a piece of expensive equipment, such as a mainframe computer, in a technical school. The firm can have access to it for training its own staff, but it is also available as teaching equipment for the school/college (e.g. in Kortrijk, Belgium).

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* for addresses of pilot projects, see list at end of paper.

2. Guidance

Concern to highlight or give more importance to the economic and industrial world, in the way that young people are prepared for adult life, led many pilot projects in the European Community's Transition Programme to give special emphasis to the introduction of schemes of work experience as part of compulsory schooling. In fact, work placements were almost synonomous with school-industry-linking in the minds of many staff. In many cases activities were organized as part of the guidance process and the Danish guidance course in the city of Aalborg, described below, is a good example. Other projects emphasised the guidance aim, but less directly, or explictly.

- Using work experience in a guidance course. In Denmark, guidance is an obligatory component of the required curriculum for all pupils in their last two years of compulsory education and work experience is often included as part of it. In the Aalborg pilot project (DK 3) a phased approach to the use of work placements in the guidance course has been developed. A short (one-week) visit to a firm is included in their 8th year (i.e. age 14/15) to give students a general idea about the world of work. In the 9th year (age 15/16) students have a two-week placement in a career area of their choice, to help them to check whether they are happy with their choice and also to gain experience of the nature of the workplace. This is then discussed in class. In the next year, which is followed by most pupils except those going on to university, another two-week placement is offered, mainly to confirm the vocational choice made, and to introduce students to specific vocational training in their chosen field. (See also Innovations 5, Work experience and guidance, Denmark.)

- A cross-curricular approach to guidance, using work experience. In the schools in the Rijndelta project (NL 25) in the Netherlands, the teachers of one subject, usually social studies, played a central, organising role in integrating the students' work placements into their guidance course. In the eight weeks preparation phase for the pupils' placements, as many subjects as possible were asked to take

part; economics to discuss the role of firms; history to discuss the history of trade unions; mother tongue, to decide how to write-up or report on the activities, etc. The project is preparing a handbook on this kind of subject cooperation. (See also Innovations 26, Guidance course, Netherlands).

- The 'territorio' approach. In all eight Italian projects, the schools were invited to explore how to participate in, and contribute to, the economic welfare and development of their area ('territorio', literally territory, but used in a very flexible sense). Closely linked was the second objective, that the schools should develop in young people a greater awareness of, and a more positive attitude to, the job possibilities of small firms and self-employment. In the lower-secondary school ('scuola media', for pupils aged 11-14) many interesting schemes developed, linking schools into the local economy, even in areas where agriculture is the main form of employment. Youth co-operatives, a wide variety of local studies with an emphasis on both economic and cultural themes, and many practical activities, were developed. In the upper-secondary schools, existing work placement schemes were extended and developed, and new types of activity linking technical and vocational schools with firms were introduced, including "enterprise" activities such as the formation of youth cooperatives working on a commercial basis. (See also Innovations 25, School and 'territorio' - Reggio Calabria).

- Enterprise education. The 'territorio' approach may be thought of as a particular, locally-oriented, version of the "enterprise education" approach, which can be seen not only in Italy but in Ireland, and the United Kingdom, Germany and Denmark. In these countries, enterprise activities have been introduced, in many different ways, into compulsory education (and post-compulsory, see below) so as to develop business skills, creativeness, and other personal qualities relevant to the world of enterprise, small firms, and self-employment. The emphasis is not necessarily on issues to do with the local economy, though that may be a convenient way for schools to handle enterprise education. The formation of mini-enterprises is common in Ireland and

the United Kingdom, in the same way as the youth cooperatives formed in some Italian pilot projects mentioned above. In a Northern Ireland pilot project, enterprise activities were introduced to give slow-learning pupils in a special school a better chance of economic independence as well as a practical introduction to the organization of production. (See Innovations 1, "Enterprise development" , and Innovations 10, "Enterprise education in a special school").

3. Staff development

A key factor in closing the gap is that teachers in compulsory education must feel that the issue is important and valuable, and be confident about handling the world of work/industry with their pupils. Ways of introducing teachers effectively to the world of industry, which many have never experienced directly, are now being taken seriously in many countries, and cannot be treated fully here, even though this is an important area in which schools' links with industry produce major benefits.*

In the Transition Programme pilot projects, the fact of participating in a programme directly concerned with young people's transition to the world of work, as part of adult life, no doubt helped to dispose teachers favourably towards opportunities designed to increase their contact with it. Experience seemed to show that unawareness of the problem (of the distance separating schools from the economic world) is the basic difficulty to be overcome, rather than hostility or lack of interest on the part of teachers, once the problem has been perceived.

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* For a fuller account of the Transition Programme pilot projects' in-service training strategies, aimed at this and other objectives, see "Teacher training; strategies from the second Transition Programme", IFAPLAN, Brussels, December 1986.

Isolation Box 5

Studies in several projects (Galway, Northern Ireland, Viterbo) highlighted the extent to which teachers in compulsory education are unaware of the vocational training opportunities in their own area, even though they may be concerned, no less than their students, that their school is cut off from society.

One study also showed how many parents have unrealistic expectations about the future careers of their children and very anti-industry attitudes.

Under the pressure of youth unemployment, many schools reflect increasing concern on the part of teachers to try to enable every pupil to find a route which will lead towards a job, particularly by securing a place on a vocational training programme where these have recently been set up and are regarded as good routes to jobs. But the same schools and teachers may still have very little contact with, or knowledge of, the local economic environment, unless they have started to introduce work experience, or some industry-linking activities, as part of either guidance or curriculum development.

The introduction of such schemes is, in fact, one of the major ways of providing opportunities for teachers to have contact with, awareness of, and understanding of, the industrial world. The need to find placements for students going on work experience launches teachers into contact with firms. The need to find lecturers, or firms to visit, has the same sort of effects. Participation in a pilot project, such as the Transition Programme projects, itself is a major learning experience for many teachers, where projects have developed work experiences, or school-industry links, or new guidance schemes, which provide opportunities for teachers to explore the world outside the school in order to handle these new developments.

Apart from these "learning by doing" opportunities, specific schemes were developed in several pilot projects, to put teachers in touch with firms in their area. A large-scale French project (F 9), on the use of work experience in vocational training, tried to ensure that teachers in general as well as vocational subjects in the 'Lycées

professionnels' (vocational schools for pupils aged 14/16-18) visited their students during their placements so as to increase their knowledge of local industry.

Work experience for teachers — Box 6

A scheme to provide large-scale opportunities for work experience for teachers was developed in the pilot project in Zeeland (Netherlands).

In three years, 75% of the teachers of vocational subjects in lower and intermediate secondary vocational schools (for pupils aged 12-16 and 16-19) took part in 3-day work experience programmes. The target group is now being widened to include all teachers in vocational training schools.

Placement opportunities were provided by 300 firms, shops, banks, hospitals, and public service bodies.

The scheme was both popular, and, so far as can be seen, successsful in its aim of giving teachers an up-to-date view of industry, some ideas about applications they could illustrate in their subject teaching, and a better idea of the kind of working environment which their students would be entering.*

A scheme targeted at careers education teachers was developed in Greece, as part of a plan to intensify guidance work at secondary school level, and to provide more systematic training for careers guidance teachers in the school. In a five-month training course, for volunteer careers guidance teachers all over the country, one month was set aside for teachers, in groups, to have opportunities to meet local firms, public bodies, etc. in order to get information, and develop contacts with them which could be of use in their professional work in the schools.**

In-service training seminars, addressed by professional economists and people from the world of industry and commerce, were a feature of most

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* see Innovations 22 : Work experience for teachers - Zeeland.
** see Innovations 7 : Field experience for guidance teachers - Greece.

of the Italian projects, at the start of their development work on the introduction of the 'territorio' approach described above. The objective, which seemed to be successfully achieved, was to increase teachers' awareness and knowledge of the economic environment of their area, as background and general orientation towards considering how to develop such work in their own particular field. Such meetings brought together teachers from different types of schools, and different levels, which was itself also a stimulating innovation.

Breaking down isolation — Box 7

Teachers in secondary schools can be brought into closer contact with the world of work by the development of direct links with the world of vocational training.

This was done on a large scale, and systematically, in Baden-Württemberg, from 1982 onwards, in a school-linking programme setting up contact groups ('Kontaktkreise').*

The scheme brought teachers from the different types of school into contact, and engaged them in joint activities such as curriculum development and guidance work.

The original aim was to raise the status of the 'Hauptschulen' (lower-secondary schools) and to make teachers in them more aware of vocational training opportunities in their region. The second aim has been very successful and the scheme has had unexpected benefits in stimulating curriculum continuity, between the schools through joint curriculum development.*

Finally, there are examples in several countries of industry's contributing to the process of training teachers. In France and the Netherlands it has become a requirement that teachers should spend a period in an industrial placement as part of their initial training. In the United Kingdom, there are examples of industry cooperating with schools in developing special training in management, for the senior staff of schools, particularly head-teachers. The Centre Study of Comprehensive Schools (CSCS) and the British Petroleum Company identified

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* see Innovations 30 : School-linking, Baden-Württemberg.

five contemporary issues in management in schools which corresponded closely to issues in industry. They were: the management of declining resources; the management of a changing market; the management of staff development; the management of conflicting viewpoints; and the management of technological change. Each of the issues was worked up into a short case-study, and made available for use in school and in industry training workshops. People in industry were surprised at the similarities in the management roles in the two fields, and at the extent to which teachers were involved in management decisions.

4. The community role of the school; and public relations

It is widely recognised that schools and firms both need to know more about what is happening in the others' world. Firms may well be aware of what is happening in schools or colleges which provide vocational training. They are much less likely to be aware of what is happening in compulsory schooling, or in general education at the upper-secondary level. Curriculum content, assessment methods, teaching and learning methods are all changing - rapidly in some countries. Industry needs to be informed, nationally and regionally, about these changes, in order to recruit successfully and to be able to cooperate effectively in support of the education system.

Schools in the pilot projects increasingly realised the need to "sell" themselves in their local community. This did not mean selling in the sense of competing with other schools for pupils. It meant:

- "selling" the work of the school to parents; schools recognised parents as resource-people both for the curriculum and in the guidance context, and that such resources would not be unlocked for the school's benefit if the parents were not informed about its activities, plans and needs;

- "selling" the school to firms; firms have to be approached, for work placements or other facilities; head-teachers found they had to spend more time on such public relations activities to obtain their share;

- making the school more known in the local community. Pilot projects are an effective way to publicise schools' activities through the local press/radio. Several pilot projects started to do this on a regular basis; a school newspaper was started in the Belgian project in St. Ghislain;

- mailing information direct to firms about new courses or certificates which schools have introduced, to ensure that firms are aware of them, and recognise them when job applicants refer to them;

- offering services to local firms and services, e.g. components manufacture and contract work.

School-industry-linking activities contributed, in all the pilot projects concerned, to establishing the community dimension, or role, of the school in its area. It was most marked in the 'territorio' approach of the Italian projects, described above. But it was also noticeable in many others (Northampton, St. Ghislain, Strathclyde, Vénissieux, for example). Linking activities not only inform schools about firms; they provide the means, and the stimulus, for schools to make themselves better known.

Support for PR and, links — Box 8

In the Netherlands, one of the main responsibilities of the school-employment centres (Contactcentrum Onderwijs Arbeid - or COA), set up since 1983 in all 12 provinces has been the publication of province-level booklets in which all the vocational schools' education and training courses, which include work placements, are described. These booklets have been sent to all the firms in the province to stimulate more firms to provide placements.

In 1986, designated "Industry Year" in the United Kingdom, the government published a loose-leaf directory of key organizations concerned with helping firms and schools establish school-industry links, and has arranged for it to be annually updated. It lists the aims, locations, target groups, activities and resources of 25 major organizations and groups, as well as reviewing the work of government departments in support of school-industry collaboration. In Germany, similar information work, and cooperative development, is extensively undertaken as part of the 'Arbeitslehre' system.

III. Local support structures

The last section analysed what schools can get out of links - to improve their curriculum, their guidance work, their staff development, and their public relations. In this section we look at the administrative and organizational side of these activities, and particularly at the different ways in which countries - or regions - have responded to the need for new services or functions to enable these activities to start and keep going; and at the different types of local support structures which are starting to be set up, as a result.

These new bodies have several things in common. They are :

- local-level
- task-oriented, and
- small-scale.

Exactly what they do depends, to some extent, on the context, and how the school-industry linking processes have developed. A number of typical functions, related to the four areas described in Part II, can be identified.

Typical activities — Box 9

Curriculum

- stimulate or assist joint development, between firms and schools, of teaching materials, e.g. :
  - case studies
  - work simulation materials
  - role-play materials
  - science teaching materials;
- organize and design projects and special competitions for students.

Guidance

- coordinate, develop, the supply and quality of work experience opportunities in firms;
- publish material about developments/trends in regional employment prospects.

Staff development

- help organize in-service courses, possibly with the involvement of employers and trade unionists on :
  - how to liaise with industry
  - new topics in science, technology
  - current problems in industry;
- organize twinning schemes, e.g. between head-teacher/chief executive to broaden their understanding of each other's work and to ensure the continuation of school-industry links.

Public relations by schools

- organize meetings for industrialists about changes in the education system (e.g. certification, pupil profiles).

In Member States three main models have been developed to respond to the need for this kind of support :

- setting up a new body
- setting up a committee
- extending the activities of an existing body.

1. Setting up a new body

In countries where there is less tradition of establishing links between the world of education and training, and where schools therefore lack experience of building up contacts themselves, specialised local support bodies can play an important role. Initiatives to launch such bodies can be taken at different levels.

In the Netherlands, the two pilot projects taking part in the Programme (NL 24, NL 25) both formed part of a national initiative, launched by the Ministries of Education and of Social Services and Employment to set up in each Province a local structure, called a 'Contactcentrum Onderwijs Arbeid' (Education-Employment Liaison Centre - or COA). These state-sponsored centres, with a two person staff and a small office, were given a broad brief to improve contacts between the world of education and industry through better communication, increased contact and coordination of services, and to help schools (principally but not exclusively) of vocational education for 16-20 year-olds to find training placements in local firms.

The activities of the COAs are described in Innovations 23, which is included as Annex 3 of this paper. They can be summarised as :

- providing an information service to industry about education, and vice-versa;

- providing a development and coordination service, as well as some practical support, for the various guidance services for young people in the area;

- providing a research, development and dissemination service on the use of work experience for both students and teachers.

Other examples of regional bodies resulting from a national initiative can be seen in Ireland (Box 10) and France (see below p.28).

COMTECs, Ireland — Box 10

Community Training and Employment Consortia (COMTECs) have been set up on a pilot basis in eight regions in Ireland. Their brief is to bring together, at local level, manpower and education authorities with community organizations.

Aim : to ensure improved local planning, delivery and monitoring of pre-vocational and training schemes for young people.

Organization :

- a director with an office and some secretarial help, but has to draw on expertise and staff from other, existing, bodies for any operational tasks;
- a seven-member planning unit (education, training, manpower services, youth education agency);
- a 30-member council, including employers and trades union representatives.

Other pilot projects resulted in regional or city-level initiatives which led to creating a support body.

In the pilot project in Modena (I 22a), in the highly-industrialized area of northern Italy, an "Agency" has been created, on the initiative of those concerned in the city of Modena itself. In this case there was no "top-down" national policy, as there had been in the Netherlands, but rather a process of growth in the industry-related activities of the schools and hence in their need for administrative and other support, which the schools themselves did not have the capacity to provide. The growth in such activities was largely the result of the creation of the Transition Programme pilot project there; and the establishment of the Agency resulted from the wish of those concerned in the Modena Association for Business Studies Training, the Chamber of Commerce, and the 'Provveditorato agli Studi' (the local education authority) to ensure that these activities would be able to continue, with the necessary support, when the project came to an end.

The result was the creation of the 'Agenzia Scuola-mondo del lavoro' (School-world of work Agency) described in Innovations 15 at Annex 4. Briefly, its main activities can be summarised as :

- a two-way information service, between schools and firms, with a special emphasis on informing schools about local perceptions of the opportunities for new types of businesses;

- the organization of experimental projects, involving mixed groups of teachers, students and industrial staff;

- the organization of courses for teachers, to increase awareness of the economic problems of the area, and to familiarise them with existing industry;

- support for youth cooperatives, set up and managed in upper-secondary schools, as a means of familiarising older students with the technical and commercial world, in the last stages of their vocational courses.

In the absence of any central sponsorship or resources being provided, the local bodies in Modena have, together, provided the basic core : the local Training Association provides the administrative and accounting support; the Chamber of Commerce supplies office space, reproduction facilities and a telephone; and other staff help can be provided, as needed, both from the schools and the education authority. The operating budget, which is provided equally by the Province, the Chamber of Commerce, and the local education authority, is therefore available for studies, projects and development work.

Another form of regional or local initiative can be found in Belgium. The pilot project in the St. Ghislain area led to the formation of a voluntary body under the name of "Transvia", which brings together the local schools in the three school systems (state, Catholic, and

municipal) in a consortium-style structure, to provide a centre in the town of St. Ghislain to provide guidance, before and after leaving school, for young people, and to provide an enterprise education support facility.

If we look outside the Transition Programme, we can see that, in countries where interest in school-industry relations started some time ago, similar kinds of bodies also exist.

350 working-groups, Germany — Box 11

The national initiative in Germany in the sixties to introduce 'Arbeitslehre' (Learning about the world of work) which is now provided in different forms all over the country, has led to a nation-wide, independent, network of support, at three levels.

At local level, over 350 working groups generate information for teachers about in-service courses; organize work placements; and provide other professional support and information of various kinds. These activities are supported, at regional (i.e. Land) level, by study-groups, and at national level by the 'Arbeitsgemeinschaft Schule-Wirtschaft' (Education-economy working group) which :

- organize national and inter-national conferences,
- publish teaching materials and policy documents.

See also Innovations 38, at Annex 1.

The origins of some other existing bodies can be traced back to initiatives by professional associations aimed at enhancing young people's awareness of their profession.

In the United Kingdom groups of, e.g. banks, engineers, managers, electronics, industry in general and trade unions have set up organizations, usually with national headquarters and local branches, to inform young people and their teachers about specific links between curriculum subjects and their fields.

2. Setting up a committee

The support needed to make school-industry cooperation successful is not necessarily administrative or financial. It may be political - in the sense of identifying tasks or needs and ensuring that the necessary priority is given to them by the existing bodies and their staff in the area. This will only happen, however, where staff and services already exist, and what is needed are clear remits to them which are jointly backed by the school system and "industry".

An interesting example can be seen in the pilot project in Aalborg, Denmark (DK 3). There, the need for support was met without the creation of any administrative body but by the formation of a high-level committee, with separate sub-committees, and a capacity to ensure that its decisions are followed up and implemented.

The Aalborg "School Contact Committee" Box 12

The Aalborg "School Contact Committee for Educational and Vocational Guidance" is an informal group, established by the Aalborg city Council, in response to an initiative from central government.

A national conference was held in Denmark in 1976 to consider the problem of the isolation of schools in Danish society. Its report looked at the practical questions of what schools needed, by way of curriculum and organizational help, to close the gap. The report was circulated to municipalities, with an invitation to make the necessary arrangements locally to meet the needs identified, especially in relation to the teaching of guidance which had been established as a compulsory subject in the curriculum for young people between the ages of 14 and 16, by the Education Act of 1975.

See also Innovations 14, at Annex 5.

The Committee, brings together the key figures from both sides of industry in Aalborg, and with representatives of teachers, parents, pupils, and the administration. It acts as a problem-identifying and remit-defining forum, and has considered topics as wide as youth unemployment in the city, and the role of the press in encouraging

communication between schools and the world of industry, as well as attending to specific guidance requirements such as the provision of work experience places, and the content of educational and vocational guidance materials.

The administrative needs of the Committee (and its sub-committees) are met by a secretariat in the form of the two guidance consultants (advisers) in the city, who are also responsible for supervising the city's 53 school-based guidance counsellors.

3. Extending an existing body

A third, commonly-used, way of backing up school-industry linking activities is by the extension of the brief of an already-existing body. Pilot projects, and other initiatives, show that a wide range of organizations can serve as host body.

An employers' association

In Biella, a textile industry town at the foot of the Alps, the Employers' Association ('Unione industriale') has a strong interest in training and the work of the schools; and some of the schools, especially those concerned with training technical staff for local industry, are strongly linked to a variety of firms. As part of the Biella pilot project (I 22b), the 'Unione' financed the conduct of a survey, carried out by the pilot project staff, of employers' perceptions of the curriculum in the area, and their priorities for its development in the future. The 'Unione', with its substantial premises, administrative capacity and resources, is already providing many of the linking functions, particularly related to the development of work experience in post-compulsory education, which might otherwise have to be performed by a specially-created body.

A local information centre

In France, where there has been strong top-down encouragement of school twinning with firms ('jumelage') since 1984, under the auspices of a national committee on school and the economy ('Haut Comité Education-économie'), the local education officer ('Recteur d'Académie') is responsible for implementing the national policy, at the local level; i.e. developing activities aimed at closing the gap between education and industry; the 'Recteurs' are assisted by 'Comités académiques' (regional committees) modelled on the national one, i.e. composed of representatives of education, training, employers, trade unions and chambers of commerce, etc.

In 18 (of the 28) 'Académies' a principal inspector for vocational education or another member of the 'Rectorat', such as the head of the guidance services, or adult education, is the anchor person responsible.

The themes of work-groups set up by the national 'Haut Comité', are mirrored in the work of the 'Comités académiques' :

- twinning with firms ('jumelages') and forms of school-enterprise cooperation;
- cooperation in vocational training;
- improving provision for young people without qualifications;
- consultation with industry and review of qualifications;
- future innovation activities;
- higher education and cooperation.

In one of the Transition pilot projects (F 11) concerned with the development of local information centres ('Centres d'Information et d'Orientation') a number of local guidance centres have in fact started

to function as linking bodies, in different ways. The CIO in Perpignan, for example, keeps a list of firms in the neighbourhood for the benefit of those oranising work experience placements. The fact that the guidance centres (CIOs) are outside the school makes it easier for them to act as an intermediary, and to facilitate the entry of firms into schools. A report on the CIOs' role in this area describes the need for them to function increasingly as a resource network, to support the linking process.

The manpower services

One or more work experience placements are part of the 'Arbeitslehre' curriculum in Germany. The local 'Arbeitsamt' (Employment Office), themselves the local offices of the 'Bundesanstalt für Arbeit' (the Manpower Services Commission), help teachers who are responsible for 'Arbeitslehre' to provide the work experience places needed.

A local education authority

In countries with a decentralised education system, local bodies, like the Local Education Authorities (LEA) in the United Kingdom which have curriculum responsibilities, often serve as a framework to which organizations or services working in the school-industry linking can attach themselves.

Almost all LEAs in the United Kingdom and some areas in Ireland now have within their organization a staff member with responsibility for developing school-industry links in the areas of curriculum (e.g. production of teaching material, integration of work experience in the curriculum); guidance (e.g. the organization of visits and placements); and staff development (e.g. secondments for teachers). These School Industry Liaison Officers (SILOs) usually work under the umbrella of one, and sometimes more than one, of the national projects set up to stimulate cooperation between education and industry.

Other bodies in the United Kingdom which are closely linked with local authorities include the following :

- Science and Technology Regional Organizations (SATRO's). Under the auspices of the national Standing Conference on Schools, Science and Technology, a network of 40 centres serving 97 LEAs throughout the United Kingdom has been established since 1971. The SATRO directors are usually former science teachers and are employed by a LEA, and have as their main task to enhance young people's understanding of science, engineering, industry and technology through closer links between schools and the outside world.

The SATRO directors, with a small staff consisting of a secretary and part-time volunteers (retired or seconded science teachers) carry out a wide range of science- and technology-related activities which involve industries and universities, such as :

- promoting secondments of teachers and in-service courses on new applications of science in industry to improve teachers understanding of industry;
- promoting conferences, and even a "head-teacher/chief-executive" twinning scheme, to inform industry about education and to strengthen links;
- sponsoring the adaptation of teaching materials by joint teacher-industry staff work-groups;
- organizing competitions, design projects, and pupils weeks (during the holidays) to improve pupils' understanding of science/technology;
- collaborating in after-school/industry activities in their region.

- School Curriculum Industry Partnership (SCIP). Launched in 1977, at the suggestion of the Trades Union Congress and the Confederation of British Industry, SCIP's aim is to introduce into the education of young people (age 5-16) an awareness and understanding of industry in the society in which they live, with the cooperation of industrialists and trade unionists. Out of 104 LEAs in England and Wales, 82 have appointed a teacher as a SCIP coordinator. After an initial 2-3 year secondment period, it has usually become a full-time post in the LEA.

SCIP coordinators concentrate their activities on a selected number of schools to be able to stimulate a cross-curriculum ("infusion") approach to school industry themes (see Innovations 39 at Annex 1).

- Project Trident. Project Trident started in 1972, and aims at the advancement of the personal development of young people (age 14 up) by collaborating with LEAs to coordinate projects which offer opportunities for work experience, active involvement in the community and personal challenge to young people.

Nearly all 36 Trident coordinators are on a 2-year secondment from industry. The LEA provides secretarial support and pays an affiliation fee to the national project.

Project Trident (United Kingdom) Box 13

Trident coordinators :
- provide the administrative contact between (approx. 7500) employers providing three weeks work experience placements and schools;
- liaise with local organizations who need volunteers and bring these opportunities to the attention of schools whose students wish to do voluntary service in the community;
- help to organize activities which are personally challenging for young people.

At the local level, it would appear that careful thought needs to be given to defining what support schools need in order to take forward industry-linking activities of the kind described in Part II of this paper; and whether such support can be provided by building a small extra capacity into some existing institution, such as an employers' organization, a Chamber of Commerce, a training association, or a local education authority.

The range of models described here suggest that there is no single, or best, solution. But it also suggests that the lack of such capacity may be a considerable hindrance to schools who wish to undertake these new kinds of activities; and also that, as more schools become engaged in

them, the competition for links, for work experience placements, and for cooperative activities of many kinds with firms, will require some degree of clearing-house, coordination or information service, at the local level.

4. Policy structures : factors for success

The evidence from the pilot projects, and from other sources, also suggests a number of factors which contribute to the success of local linking structures.

Local support structures are more successful when :

- they are supported by a national initiative. It is important to note that all the bodies, whether old- or recently-established, which have been set up at the local level, have resulted from a national-level stimulus of some kind, whether in the form of a direct request to consider the problem of the isolation of schools, as in Denmark; or the move to establish 'Arbeitslehre', in Germany; or the establishment of pilot projects, themselves nationally- and Community-sponsored. This analysis strongly suggests that central initiatives are likely to be required - or at least national- level support for local initiatives - in countries which have not yet gone through this evolutionary process at the local level, if local-level initiative is to be undertaken, and the necessary school-linking structures, or functions, provided.

- they fit into regional or local-level education policies. National-level stimuli need to be reinforced by regional-level education policies. The experience of projects in Member States where schools, or local education authorities, have freedom to arrange at least parts of their curricula themselves, indicate that linking activities are more successful where education authorities can and do support them. Support can take the form of, e.g. sponsoring linking bodies, and ear-marking in-service training money for courses.

- they have some decision-making power. The new structures must be responsive to local needs and opportunities. When this is not so, e.g. because representatives of national organizations in the governing board have to consult their national bodies too much, it will hinder the build-up of an effective, linking structure. National-level organizations must be willing to decentralize.

- they have a broad, representative, governing board. Both the world of work and of education are multi-faceted. This means that usually the governing boards or consultative committees of linking bodies tend to be rather large, e.g. the average number of the board of a Dutch COA is 17 (see Annex 3), while for the Irish COMTECs the maximum membership of their boards is set at 30. Experience from projects show that it is very important to achieve a broad composition so that member interests on it feel that it is balanced. Once one of the main partners feels under-represented, it tends to lose interest in the activities of the body.

- they work with task-focused groups. Involving members of the board in the activities of task-focused groups has also had a positive influence on the commitment of both educators and industrialists. A joint search for a specific solution has often proved a catalyst by providing the group with the means of getting directly involved in a day-to-day problem.

- they receive some financial resources. The "added-value" of creating an agency deserves closer study. It is too early yet to do this in the case of the Dutch and Modena bodies. But the initial and on-going costs of such organizations are modest. The COA is initially provided with two staff and a small office, but is encouraged to borrow, or obtain the secondment of, individual specialists, who are needed for particular tasks on a short-term basis. Thus, in 1985, three years after their launch, the 12 COAs had on average five staff each.

- they are part of a network. Support structures need money, but they also need, e.g. teaching materials, advice on cooperation models

and how to promote in-service courses, directories of relevant organizations, etc. Avoiding a situation in which many agencies are undertaking more or less the same activities is of prime importance. Networks in Germany ('Arbeitslehre'), the Netherlands (national organization of the COAs) and the United Kingdom (SCIP, SATROs and Project Trident) have proved to be a valuable source of support for their members.

- their staff is committed. Members of staff should ideally combine subject knowledge with entrepreneurial flair, and have the ability to gain the confidence of teachers and industrialists. They need to have had experience in both "worlds", and be willing to do "missionary" work - to convince industry that school-industry cooperation means they need to do more than just pay their taxes, and schools that they are not "selling out" to capitalism. They need also to have the ability to work independently, and to develop good relations with local education administrative staff.

IV Conclusions

The growth of school-industry linking is a milestone in the evolution of basic education in Europe. It marks the end of what might be called the "cloister" tradition, which enclosed the school within its walls, and ensured that the "real" world was kept at a suitable distance, for a variety of reasons, both good and bad. For the schools, and for individual teachers, the development of working links and new partnerships with firms and organizations in the local community poses a number of difficult challenges, but provides a huge range of new opportunities, of real educational and social value to both pupils and teachers. In the past, relationships of this kind existed between industry and the vocational sector; now, schools responsible for general education and compulsory schooling, both at secondary and primary level, are becoming partners too. This development has been reflected in nearly all the 30 pilot projects taking part in the Transition Programme.

On the basis of this evidence, a number of key recommendations for the effective development and use of school-industry links in the future, are presented.

1. The schools, and in particular head-teachers, should be aware of the wide range of activities in compulsory education to which school-industry links can contribute. Most links start from a particular type of activity, such as the use of work experience for guidance purposes, or the promotion of education for enterprise; but, as the Transition Programme pilot projects have shown, links can be used for a wide variety of good educational purposes, and their full potential should be exploited.

2. Head-teachers should also be aware of the value of school-industry links at all levels of the school system. While vocational schools have traditionally been most active, and have the longest tradition in this area, and secondary schools providing compulsory education are now becoming more active, it is clear that lower-secondary schools (or middle schools) and primary schools also can have successful and valuable industrial links.

3. It is clear that closing the gap between schools and the industrial world calls for a national initiative, from above the level of the schools themselves. This is needed to provide a political, and in some cases also legal and financial, framework within which links can successfully develop at the local level. It may also be required in order to bring about the creation of the necessary local support for the linking process, and to give schools the necessary curriculum freedom to exploit the advantages which links can offer.

4. At the local level, there is a clear need for support for the linking process, whether through the creation of a modest organization, such as has been described in Part III, or by the addition of the necessary staff and support capacity to an existing organization.

5. The evolution of these supporting structures/services should be further monitored, at European level, so that there can continue to be a valuable exchange of ideas and experience between them, for their mutual benefit. In this way, the concept of partnership, which they exist to support, can be developed further, in the context of European cooperation.

Innovations

EUROPEAN COMMUNITY
ACTION PROGRAMME

TRANSITION OF
YOUNG PEOPLE
FROM EDUCATION
TO ADULT AND WORKING LIFE

38___'87 "ARBEITSLEHRE" – GERMANY

PROGRAMME INFORMATION OFFICE
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Started in the 1960s, 'Arbeitslehre' (Teaching about the world of work) is now included in the curriculum of the majority of pupils in Germany and usually includes some form of work experience. There is pressure to make it obligatory for all. A network of local school-industry groups help teachers provide it.

Context

In the last ten years in many European countries, courses have been introduced as part of the secondary education curriculum (or outside it) to inform pupils about the nature of working life. In the Federal Republic of Germany, discussions on this question began as long ago as 1920. In the early 1960s, some Länder (states) began to introduce 'Arbeitslehre' (Teaching about the world of work), as part of the curriculum development accompanying the major reform in lower secondary education which replaced the 'Volksschulen' with the 'Hauptschulen', (schools which now take about 40% of the pupils aged 11-16).

Today, 25 years later, each of the 11 Länder has developed its own 'Arbeitslehre' curriculum, implemented under a variety of names, e.g. "work/economics/technology", "polytechnique/ Arbeitslehre", "economics/politics".

'Arbeitslehre' :

- is provided to well over half of all lower secondary education students in Germany;
- is not only part of the 'Hauptschule' and the comprehensive schools' curriculum, but is increasingly provided in 'Realschulen' which take 35% of 11-17 year-olds; and there is a growing pressure to offer it to the remaining 25%, who are in "Gymnasien";
- usually includes a period of work experience;
- is supported by a large network of school-industry liaison groups.

Theme with variations

Objectives. There are local variations, but 'Arbeitslehre' generally aims to :

- provide students with basic knowledge about, understanding of, and competencies in, many technical, economic and social aspects of working life;
- enhance their understanding of the connexion between these economic realities and the political process; and
- provide information about careers opportunities and education and training opportunities.

Organization. 'Arbeitslehre' may be :

- a separate subject;
- a cross-curricular activity; usually across economics, social studies, technology, craftwork and guidance/careers education; or a mix of subject teaching and project work;
- part of existing subjects, designed to help teachers link their subject to other subjects and the world outside.

Duration. The last 3 or 4 years of compulsory education.

Time.
From 1 to 8 hours weekly; usually about 4.

Methods. Active, participative teaching methods are often recommended, e.g. role-play, project work, case studies, lectures by industrialists and mini-enterprises. Also group visits to firms, and work experience placements (2-3 weeks in the last year, or 1 day a week for a longer period).

Example from Berlin

In Berlin schools, 'Arbeitslehre' is included in the last 4 years of Haupt-, Real-, and comprehensive schools (4-8 hours a week) and years 9 & 10 of the Gymnasium (2 hours a week). In each year there is a central theme, for project work, supported by special courses (e.g. consumer information) in subjects such as social studies, technical drawing, and typing.

Year 7 (age 12-13) : Theme - "Produce something for yourself", covering the role of the consumer; economic and technological aspects of the mechanisation of the home; the design, production and marketing of goods; and household budgeting.

Year 8 (age 13-14) : Theme - "Production for somebody else", covering the simulation of a production process in a school workshop; study-visits to firms; discussions with Trade Unionists and employers; and the division of labour and automatisation.

Year 9 (age 14-15) : Theme "Production for the mass-market", covering the structure of an organization, technical/economic/social aspects; and a placement for guidance purposes - a six-week preparation period; a 2-3 week placement; and two weeks follow-up.

Year 10 (age 15-16) : Theme - "Career choice". Further guidance in one of the following occupational areas - technology, commerce, public services, care-services.

Support structures : national, regional, local

Local Manpower Services. ('Arbeitsamt'). Specially trained staff help teachers in several stages of the guidance process. They provide/ organize: general information (lectures in classes and written material); individual counselling; evenings for parents; visits to careers information centres providing materials, videos, slides, where students can look for and retrieve information.

Regional coordination agencies. Usually the teachers, often helped by the students and/or parents, identify the places needed for the work placements themselves. If asked, the 'Arbeitsamt' will help. In some areas special bodies have been set up to coordinate this process; the "Work experience centre", established in 1975 at the request of some big firms in Kassel, coordinates approximately 5000 work experience places each year, and is run by one full-time member of staff and 4 teachers seconded for one day a week.

In-service training institutes. In some Länder, university courses to become 'Arbeitslehre' teachers are available. Usually, the 'Länder' in-service training institutes offer courses, e.g. on : teaching methods, "starting a school-based 'Arbeitslehre' curriculum", and how to achieve subject integration.

The 'Arbeitsgemeinschaft Schule-Wirtschaft'

This "Education-Economy Working-group", is a voluntary organization of teachers and industrial staff which started in one 'Land' in 1953 and became a national organization in 1965. It aims at improving the teaching of 'Arbeitslehre', particularly through creating school-industry links at national, regional and local level. About 100,000 teachers use its services each year.

- National-level working group
  - makes recommendations about in-service training and new developments, e.g. 'Arbeitslehre in Gymnasia';
  - organizes national and international meetings, e.g. on new technologies;
  - develops and publishes teaching materials, often jointly with the national Ministry of Education, e.g. on vocational guidance, wage negotiations, and case studies;
  - organizes the international twinning of German schools, e.g. with Swedish firms;
  - advises and supports the regional study-groups.

- Regional-level study groups (11) :
  - adapt nationally-prepared teaching materials;
  - organize meetings on, e.g. new technologies; school-industry partnerships;
  - help teachers to find industrialists willing to be guest speakers.

- Local-level work-groups (about 330) :
- inform teachers about in-service courses;
- organize work placements for teachers and students;
- organize meetings between industrialists, students and teachers;
- organize discussion meetings between teachers and industrialists on matching industrial requirements with educational aims.

About 2000 teachers participate in these work-groups.

The 'Arbeitsgemeinschaft Schule-Gewerkschaft'. In these groups teachers and trade-unionists work together. The aims of these working groups are comparable to the school-industry groups, e.g. they also publish teaching materials and help to contact guest-speakers. However, probably due to the fact that trade unions have less resources available, they can offer less work experience places and often have less time to invest. Both the number and influence of the trade union groups are smaller than that of their counterparts.

Further information

More information about 'Arbeitslehre', can be obtained from the Federal and 'Länder' Ministries of Education, and other sources such as the periodical 'Arbeiten & Lernen, die Arbeitslehre', Friedrich Verlag, D - 3016 Seelze 6; and the Bundesarbeitsgemeinschaft Schule/Wirtschaft, Postfach 510669, D - 5000 KÖLN 51.

Examples of other countries' approaches are summarized in Innovations :

3 Work experience in the curriculum - Ireland
4 School cooperatives - Italy
14 The school contact committee - Aalborg, Denmark
15 The school-work agency - Modena, Italy
23 The school employment centres (COAs) - Netherlands
26 Work experience in the curriculum - Netherlands
39 School, Industry & Curriculum - U.K.

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"Innovations" is a series about new developments in the field of young people's transition from education to adult and working life. DOC: 09PP87EN. Brussels, September 1987.

Innovations

EUROPEAN COMMUNITY
ACTION PROGRAMME

TRANSITION OF
YOUNG PEOPLE
FROM EDUCATION
TO ADULT AND WORKING LIFE

39___'87
SCHOOLS, INDUSTRY & CURRICULUM

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For many schools closing the gap between school and the world of work means giving an industrial dimension to the curriculum. Various methods of doing this can be seen. The cross-curriculum approach, in which teachers in several subjects collaborate for this purpose, is described here.

Context

In a growing number of European countries secondary schools are concerned to provide students with a basic understanding of the role of industry in modern society, i.e. manufacturing, commerce, the service sector, and the role of trade unions. Several models or approaches have been developed to do this :

- a new subject may be introduced or an existing one enlarged;
- special short courses or modules about aspects of industry may be used;
- extra-curricular activities may be organized, mainly where timetable restrictions make it difficult to adapt the curriculum itself;
- a cross-curriculum or "infusion" approach may be used where teachers decide that awareness of industry should permeate several subjects or even the whole curriculum. Most - if not all - subjects are encouraged to pay attention to aspects of industry, e.g. by illustrating theoretical teaching with "real life" examples or by inviting guest-speakers from outside the school.

In the United Kingdom the School Curriculum Industry Partnership (SCIP) has developed techniques to help schools make contact with firms, consider how to develop their subjects, and coordinate their ideas with other teachers.

A phased introduction of the SCIP approach

The strategy of the School Industry Curriculum Partnership to add an industrial dimension to the whole curriculum is based on the following principles :

- the long-term character of the change should be recognised, for which a step-by-step sequence of activities will be needed, so as gradually to involve all the subject departments;
- the school needs to establish active links with local industrialists and trade unionists;
- local industry or the local "economic community" needs to be involved in planning, implementation and evaluation;
- activities need to be carefully geared to the possibilities of the school and the opportunities in the region.

The "learning by doing" philosophy of the SCIP is reflected in their implementation strategy :

1. A school identifies its needs and aims.
2. A school/industry committee is set up to plan a cooperative scheme.
3. If needed, in-service training activities are set up.
4. The scheme is jointly implemented.
5. Outcomes are reviewed in the light of the aims set; the next step is planned.

Methods

SCIP has developed means to support schools in each phase of the strategy.

1. Identification of aims. After one or more teachers have shown interest in opening up the school to industry, the local SCIP coordinator (a teacher seconded to work full-time for the LEA) usually suggests organizing a curriculum review in the school to identify :

- aims, e.g. develop the students' understanding of industry; improving careers guidance; or showing the relevance of subjects to the world of industry;
- how the curriculum should be altered, e.g. by organizing work experience or work-shadowing opportunities; setting up mini-enterprises; or arranging a series of guest speakers.

In one school all teachers took part in a curriculum review day to identify :

- the contributions of each department to a work experience scheme, a "problem solving" day and industrial courses;
- particular areas of the curriculum where links with industry could be further developed.

2. A school-industry committee. Early collaboration with industrialists in the planning process is needed to determine both the choice of subject content and the approaches to learning, as they know what opportunities/resources are available.

To give it power and status, the school-industry committee should include a deputy-head of the school and heads of key subject departments as well as the SCIP coordinator, teachers and industrialists.

3. In-service training. For many subject teachers, industry is as unknown an environment as it is for their students. Often they are also not used to the active, participative learning methods, e.g. case studies, group-work, problem solving exercises, which most school-industry schemes require.

To support teachers :

- SCIP coordinators have linked "new" with "old" SCIP schools.
- SCIP coordinators also make it possible for heads, deputy-heads and heads of departments to take part in one-day training courses, sometimes organized by a firm in its training centre.

Visits and placements in firms are also arranged for teachers.

4. Implementation. Sometimes few subjects are involved; sometimes many. Coordination between teachers is essential, so that they can plan the themes, and the sequence of their introduction into each subject during the year.

5. Review of outcomes. Ten years of SCIP experience shows that usually a start is made with a few subjects and over 2-3 years, more become involved, in response to the positive, often enthusiastic, reactions of students, teachers and head-teacher.

Case-study : a school's first year using the SCIP approach.

Aims. An urban comprehensive secondary school, in inner London, decided to promote learning about successful enterprise with some of its fourth-year (15 year-old) pupils. 58 were selected; boys & girls; more & less able pupils.

Subjects. In subject lessons, pupils studied topics related to the examination syllabus. In design technology; product design, manufacturing methods, specification and cost of materials. In mathematics; finance of a business, material calculations, cost estimations, opening a bank account, preparing a balance sheet. In economics; market research, advertising, consumer protection.

Consultants. Staff from banks, businesses, consumer services, trade associations, collaborated with teachers and the SCIP coordinator.

Action. 10 cooperatives were formed, 2 service sectors, 1 advertising, 1 catering, 6 production. In July, the groups ran simulated business games; made business plans; applied to the local bank manager for loans; for one week produced their goods/services; and wound the businesses up.

Outcomes. Pupils liked learning to work together, learning business skills, and wanted more time for production

SCIP's factors for success

SCIP works in about 80% of the local authorities in England and Wales, and is jointly sponsored by employers organizations, trade unions and government departments. It concludes that:

- the value of industrial contributions is greatest when schools can be explicit about their needs, but do not try to prescribe how industry should meet them.
- industrialists and trade unionists can make valuable contributions to deciding what and how students should learn.
- task-oriented cooperation leads to the best mutual understanding between school and firm; They contribute best as consultants or advisers not in a "teaching" role;
- experience-based learning helps students to explore their attitudes to, and understanding of, industry;
- the appointment of a local SCIP curriculum coordinator (consultant) is an indispensable part of effective curriculum change, to accelerate the process of development, disseminate good practice.

Further information

SCIP News: Newsletters briefly describing schools' experiences in using the SCIP approach;
SCIP Project Summary: The history aims and methods summarized.
Available in English only from SCIP, Newcombe House, 45 Notting Hill Gate, London W11 3JB.

Other approaches to school-industry curriculum collaboration are described in Innovations:

3 : Work experience in the curriculm, Ireland
4 : School cooperatives, Italy
15 : The School-work Agency, Modena, Italy
26 : Work experience in the curriculum, Netherlands
38 : 'Arbeitslehre' - using a separate subject/ multi-subject approach, Germany

Approaches with an emphasis on using industry links to support careers guidance are summarized in Innovations:

5 : Work experience and guidance, Denmark
7 : Field experience for guidance teachers, Greece
25 : School and 'territorio', Italy

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23___'87 "COA": SCHOOL EMPLOYMENT CENTRES

PROGRAMME INFORMATION OFFICE
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A 'Contactcentrum Onderwijs-Arbeid' (COA) or School-Employment Liaison Centre, has been set up since 1982 in each of the 12 Dutch provinces. They are an important part of the government's efforts to bridge the gap between school and the world of work. Their main fields of activity are: information; the coordination of guidance; and the improvement of work experience schemes.

The COAs were set up, by the Ministries of Education & Science, and Social Affairs & Employment, between 1982 & 1985, and 2 have taken part in pilot projects in the second European Community Action Programme on Transition. Each receives a grant to cover the cost of two staff members, office accomodation, and running costs. Most of the COAs have been successful in tapping other, resources : in 1985 on average they employed 5 staff.

COAs are not autonomous bodies. Their experimental status requires that they be attached to an institution such as a Chamber of Commerce or a training body.

Each COA has a governing board of about 17 members : 5 from the social partners, 6 from education organisations, 4 from supporting institutions (Chamber of Commerce, Manpower Services), 1 from the provincial government, and 1 adviser. After a year's experience, 60% of the members say they are satisfied with them: 25% find them too large.

Boards have set up executive groups, and working parties, on specific themes.

COAs and guidance: a Careers exhibition

Each COA has developed its own programme, according to local needs and resources. But all are active in 3 major fields: education-industry information; the coordination of guidance; and improving work experience schemes.

Education-industry information

In order to meet the schools' need for more information about industry, and industry's need for more information about the school-system, COAs have :

- provided schools, guidance services and industry with information on labour market changes, interpreting and adapting national and other data to the regional context, eg. on school-leaver numbers, unemployment data, manpower demand forecasts, etc. (COA Noord Holland);
- collected new labour market data, especially on short-term (1-3 years) demand for specific groups of employees, and on the qualitative match between students' qualifications and industrial needs (COAs in Groningen, Friesland, Drente);
- organised information events, such as meetings to inform staff in industry about new types of general and vocational training courses;
- published newsletters and/or press-clipping bulletins (7 COAs);
- acted as a clearing house where guidance counsellors can obtain relevant up-to-date information. Most COAs are organising a computer-based data bank.

A national COA-organisation publishes a Newsletter, sent to all organisations represented in COA Boards, i.e. Chambers of Commerce, MSC agencies, school inspectors, educational organisations, trade-unions, employers organisations, etc. (circulation about 1000).

Support for guidance services

Careers guidance is provided by several dif ferent services, each acting independently; part-time guidance counsellors in schools, manpower services and private agencies. The COAs have tried to provide a link between them, and to coordinate them by :

- publishing directories of all local guidance services, listing their aims, target groups, staff and available materials; and "directories of firms" with data on their size, branches, product-type, and often, data on their willingness to provide work experience opportunities, guest lecturers, etc.(COA Gelderland);
- developing "guidance master plans" for each of the 4 types of lower-secondary schools for students aged 12-16, covering all the separate agencies' activities, ie. testing, counselling sessions, self-assessment projects, etc. (COA Zeeland);
- developing careers information centres, especially targeted at unemployed young people & school leavers, providing detailed and up-to-date information on careers (work profile, minimum training requirements, career prospects) and also personal counselling. In Middelburg, such a centre is open from 9am to 4pm but not at week-ends. It plans to develop into a resource centre for school-based guidance teachers. In 6 months in 1986, 1200 people used the centre; 50% students, 20% unemployed, 30% employed;
- providing practical support, through careers information evenings (over 2000 students attended from 34 schools; COA Rijndelta); careers exhibitions (14,000 students mostly with their class-teachers, and some later also with their parents, visited one 4-day exhibition); and guidance materials.

Work experience schemes

Vocational training in the Netherlands is mainly provided, from age 16, in vocational training institutes or schools. Work experience is always part of such a course, and comprises up to 1/3 of it.
COAs have developed various activities to extend the provision of placements and improve their quality, in particular :

- conducting surveys. The Utrecht COA conducted a province-wide survey and found that 8000 firms provided 14,500 placements each year, and that 5500 students were on work experience schemes at any moment of the school year. Other surveys have identified problems, mostly concentrating on one type of vocational training, especially the newer ones, eg. the shortage of work placements in newly-introduced courses, which are relatively unknown to employers, for instance in the administrative and caring fields;
- disseminating information material, eg. a brochure for firms on all courses in the province which include work experience (COA Brabant);
- setting up working groups of schools and firms to discuss the content of specific work experience schemes (COA Overijssel);
- identifying new placements. One COA obtained 300 new places, another over 800, for particular vocational training and work-orientation courses (COAs in Drente and Rijndelta);
- compiling a placements-bank, i.e. a list of firms willing to provide placements.

Other activities

Among the other activities which COAs have initiated or supported are:

- school-industry twinning;
- computer awareness courses, for teachers (COA Limburg), and for women (COA Zuid Holland);
- work experience schemes for teachers (10 COAs have started with schemes - see separate "Projects & Profiles");
- establishing a regional centre for advanced technology, where teachers and students can train on modern equipment (3 COAs);
- support for a school for the introduction of a simulated firm, where students will be trained in administrative methods;
- organising courses for young people, on industry.

An evaluation commissioned by the Dutch Ministry of Education concluded that, in a relatively short space of time, the COAs had already succeeded in greatly intensifying contact between the world of education and the world of work in all their three main fields of action. The key factors for success were identified as:

- staff commitment;
- sound choice of activities;
- the use of theme-related working groups and the participation of firms in them;
- the relative independence of the COAs;
- the use of regional sub-groups in the larger provinces (the largest province also has 2 COAs);
- the close relations with provincial administrations.

Further information/reading

Information available in Dutch :

o COA-informatief - a national Newsletter from the Secretariat.

o Vries, B. de; Evaluatie van de contactcentra onderwijs-arbeid, Nijmegen, ITS, 1985 (an evaluation of the COAs).

A short report in English on the Limburg COA can be found in Young People in Transition; the local investment. CEDEFOP, Berlin, 1986.

Contact addresses

Further information on the activities referred to can be obtained from each of the COAs. For a full list of the addresses of the 12 COAs, please write to one of the following:

Secretariaat Landelijk Beleidsgroep COA
(COA National Policy-group)
de Heer J. te Wierik
Postbus 2475
NL - 3500 GL Utrecht
Tel° 31 (30) 91 36 98

Ministerie van Onderwijs en Wetenschappen
(Ministry of Education and Science)
(afd. VO/BO/BE)
de Heer K.W. van Dijken
Postbus 25000
NL - 2700 EZ Zoetermeer
Tel° 31 (79) 53 31 38 or 53 19 11

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15 ___ '87
SCHOOL-WORK AGENCY – MODENA, ITALY

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The Modena "Agenzia Scuola-Mondo del Lavoro" (School-World of Work Agency) is one of several school-industry linking agencies set up in pilot projects in the second European Transition action Programme. The Agenzia offers services and help to teachers in lower-secondary and upper-secondary schools, especially technical/commercial ones. It has created a youth cooperative as part of its support for entrepreneurial education.

The Province of Modena, in the north Italian region of Emilia Romagna, is one of the most prosperous areas in Italy. The European Community Transition pilot project in Modena was designed partly to develop links between schools and industry. Both 'scuole medie' (lower-secondary schools, for pupils age 11-15) and 'scuole superiori' (upper-secondary schools, for students aged 16-18) took part. Many of the latter have strong local links with industry. The project was partly designed to develop and extend them.

In 1985, the "Agenzia Scuola-Mondo del Lavoro" (School-World of Work Agency) was set up by an agreement between the three main partners concerned :

- the local education authority (Provveditorato agli studi);
- the Modena Chamber of Commerce;
- the Modena Association for Business Studies Training (Associazione Modenese per la Formazione Aziendale; AMFA).

In 1986, the Modena Provincial authorities also joined as sponsor.

The Agency was seen as a way of closing the gap between schools and the world of work by putting existing links between them on a more positive and continuing footing; and by giving support to the wider use of active learning approaches through assistance for project work and case-studies.

Organisation

Emphasis is placed on the Agency acting as a service at the disposal of teachers. In this sense it is conceived as a flexible way of supporting schools who wish :

- to develop closer links with the public services and firms of the area;
- to provide a high-quality education, based on the realities of today's world, as a preparation for entering life and the world of work.

The Agency has an annual programme, and budget, arranged by its Governing Council, which is composed of 1 representative of each of its four sponsoring bodies. The operating budget for 1986/87 was 60 million Lire (£30,000) provided equally by the Province, the Chamber of Commerce and the local education authority.

The Training Association takes the main responsibility for organising and developing the Agency's programme. The structure is extremely flexible. Staff needs are also met by the Association as well as the provision of administrative and accounting services, to keep down running costs. The Chamber of Commerce supplies office space, reproduction facilities, telephone, etc. Further staff help may be given by schools and the education authority. Experts may be hired by the Training Association. The Agency's own budget is therefore available for development work, studies, contracts, etc.

Programme 1984/85 & 1985/86

The Agency has provided a way of putting some of the initiatives taken by the pilot project on a continuing basis. The activities covered in the first 2 years were :

- the development of information on names and addresses of firms; training facilities; and schools and types of courses provided,
- joint school-&-industry case-studies by, and for, business people and teachers. In the first year, such meetings examined the question of establishing new firms and the training which schools could provide for that purpose; and in the second year, financial and banking services, and their training needs.
- the organization of experimental projects, involving mixed groups of students, teachers and firms' representatives, for the use of applied research and the involvement of schools in micro-projects in cooperation with firms. Example : a statistical survey on the scope for the use of information technology by firms in Modena, in collaboration with the 'Istituto Technico Commerciale' (Business Studies Technical College).
- activities designed to increase awareness of the economic problems of the local economy, on the part of schools.
- the preparation of teaching material to help carry out statistical surveys.
- short courses in firms for teachers.
- activities in support of youth cooperatives, set up and managed by pupils from the 'scuole superiori' (upper-secondary schools).

Programme 1986/87

- Information. Preparation of lists of firms available and willing to offer schools visits, facilities for research mini-projects, and placements for work experience for students and teachers.
- Data on teachers in the upper-secondary schools will also be collected, to help firms make direct contact with schools more easily, and to enable them to pass schools up-to-date information on firms' activities, related to the schools' interests.
- Meetings. A series of meetings for teachers and students is planned with experts from the National Quality Control Association. This will be particularly for 'Istituti Tecnici Industriali' (ITIs - Industrial Technical Colleges).
- Entrepreneurship education. Support for the development of the Co-operative already formed (see next column) and help with the establishment of other youth cooperatives.
- Teacher training. In addition to the courses already provided for about 80 teachers, new courses will be offered.
- New businesses. Between January and March 1987, a series of meetings was arranged with local leaders on the economy of Modena. This dealt with opportunities for economic development, in different sectors, in Modena, and the scope for new businesses.

The "Programma 2050" Co-operative

This Youth Co-operative was one of the first concrete results of the establishment of the Agency, and its support for entrepreneurial development. It consists of students and teachers at the 'Jacopo Barozzi Istituto Tecnico Commerciale' (Technical and Business Studies College).

The Co-operative aims to bring young people leaving school closer to the world of production, in terms of acquiring the skills, outlook, attitudes, etc. needed for entrepreneurial activity, as well as providing opportunities for a variety of relevant experience. It undertakes business initiatives of its own, providing services of a technical, administrative, research, and data-collecting nature, and undertaking commissions and work for firms and organizations in the private and public sectors.

The Chamber of Commerce commissioned the Co-operative to produce a data-base of member firms, and their economic characteristics, and to help draft the Chamber's quarterly economic survey, contributing its own analysis of the data.

The Co-operative undertook, for CENSIS (a national research institute), the collection and analysis of data on the Carpigiana knitwear industry. It also collaborated with an information technology group and IBM Italy on the development of a programme for the automatic analysis of firms' balance sheets.

Comments

The Agency is still in a developmental stage. Its activities, and those of the pilot project, have highlighted a number of problems and needs for the future, although not all of them are soluble at the local level.

- There is a need for greater awareness on the part of firms of the needs and problems of the schools, and also of the need to ensure support for all the schools in the area, not just those with which they want to collaborate on technical/commercial projects.
- Time-tabling constraints are a major obstacle to schools' exploitation of school-industry links.
- Traditional methods of teaching, and the narrowness of teacher training, with its emphasis on the didactic role of the teacher need to be reconsidered, to help teachers develop working links with local firms. New skills, and new attitudes, are needed.
- The problem of finding the right balance between the general and the vocational elements of the curriculum needs to be resolved. (It is a central issue in the proposals for the reform of upper-secondary education, which have been under debate in Italy at the national level for many years).

Despite these difficulties, the Agency is seen as making a valuable contribution in providing opportunities for both teachers and firms to develop new links with firms; and as making a long-term contribution to the social and economic development of the city. Basic to this view is the principle that schools are not at the service of, or subordinate to, the world of industry, but should take part, as equal partners, in the process of social and economic development.

Further Information

Innovations 4, in this series, describes a range of "School Cooperatives" recently set up in Italy at the upper-secondary and lower-secondary school levels.

Innovations 14 on the School Contact Committee, Aalborg, Denmark, and Innovations 23 on the "COA"s (School Employment Liaison Centres) in the Netherlands, describe other approaches to the need for school-industry linking functions. Both available in all EC languages, in this series.

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14 ___ '87
THE SCHOOL CONTACT COMMITTEE – AALBORG, DENMARK

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The need for an effective linking structure between school and the world of work was met by the city of Aalborg (Denmark) in 1977 by the creation of a "School Contact Committee for Educational and Vocational Guidance". It is an informal body, for cooperation and action on any aspect of school-trade/industry contact, working through the existing agencies, especially guidance counsellors.

Context

"Closing the gap" beween school and the world of work commonly generates a need for a local advisory or consultative mechanism, to bring together the many partners, on both the education and industrial sides, with responsibilities or interests in this field. There are many ways of meeting this need. One way is by setting up a special committee as part of the existing political structure at the local level. In Aalborg, the Committee established was an informal one. It brought together representatives from the interested bodies, with agreed terms of reference.

The School Contact Committee has about 60 members and normally meets once a year. It is assisted by an executive committee, and two other committees; one on the labour market and one on education. These meet 4 or 5 times a year. The School Contact Committee is presided over by a senior official from the employment service, i.e. "neutral", and therefore neither from education nor industry.

Guidance councellors meeting in one of the School Contact Committees.

The Committee has no executive staff. It works through existing agencies, using designated members of the city guidance counsellors as its secretariat.

Origins of the Committee, 1976-77

The impulse to set the Committee up came from the Education Act of 1975, extending compulsory schooling from 7 to 9 years, and establishing educational and vocational guidance as a compulsory curriculum subject.

In the following years, the isolated position of schools in society was widely discussed in Denmark. A national conference was held in 1976 to consider how to create effective collaboration at the local level between school and working life. It examined :

- the practical problem of how to involve people from the world of work in teaching in schools, especially careers education;
- the production of teaching materials by the labour market sector;
- schemes for teaching by visitors in schools;
- schemes for pupils' visits to work places;
- which bodies should collaborate locally to solve these questions.

In 1977, a report of the conference was distributed nationally to encourage local collaboration initiatives. In June 1977, the Aalborg municipality responded by consulting some 60 local bodies, on a proposal to form a school trade/industry committee. The proposal was endorsed, and the School Contact Committee was set up.

Composition

The School Contact Committee consists of representatives of :

- the social partners i.e. employers' & employees' organisations (top-level);
- the state, county and city public services;
- post-compulsory education institutions, including the school for semi-skilled workers in Aalborg;
- the Employment Service;
- the Health & Welfare Department, including school doctors;
- the Ministry of Employment local office;
- the Municipality's Education Committee; and School boards;
- pupils (i.e. from schools' Pupils Committees);
- the Joint Teachers Committee (municipal level);
- local education authority officers;
- head-teachers;
- school consultants (advisers) for pupils with psychological problems.

The Labour market Committee has a similarly broad, representative, character but with 3 representatives from employers and 3 from employees . The Committee on Education has more representatives from the different types of secondary and vocational schools in the city.

The 2 guidance consultants (advisers) in the city, who supervise the city's 53 school-based guidance counsellors, provide the secretariat for the School Contact Committee.

Meetings of all the committees are held in the Eudcation Department or the Town Hall offices.

Aim

According to its "structure and working arrangements", the aim of the Committee is "to strengthen contact between Aalborg's school system and educational institutions and trade and industry in Aalborg municipality, according to the intentions and special provisions of the Education Act, with particular reference to the compulsory subject educational and vocational guidance, the optional subject vocational studies, and contemporary studies".

Activities

The Committee meets once a year, and in the 10 years of its existence, has concerned itself, among other things, with the following :

- the arrangements for schools' visits to firms in the city; the provision of the necessary placements, and the coordination of schools' use of them;
- commenting on educational and vocational guidance materials prepared for use in the school system;
- the provision of various forms of work experience;
- youth unemployment in the city;
- the use of the press and other media for encouraging contact between school and industry and commerce;
- possibilities for improving understanding between school and industry over young people's transition to continued education and employment;
- the European Community's pilot project in Aalborg.

Activities of the sub-committees

The executive committee and the two sub-committees on education and the labour market, deal with more specific topics, and the following are examples :

- the production each year of a pamphlet describing the education opportunities of Aalborg;
- "Education Days". All pupils in the 10th year (age 16) are offered the chance of visiting 4 different firms or educational institutions in the municipality, in a 2-day period;
- conferences for guidance counsellors and for staff from industry and commerce;
- initiatives, on behalf of young people in the local area; the committees may make proposals to central government, or the counties, or other municipal authorities.

Further information

Projekt Notat No. 18 (October 1986); "The School Contact Committee for Educational and Vocational Orientation". Original in Danish. Summary version in English.

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List of contacts for Transition pilot projects referred to in the text

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B - 7330 Saint Ghislain. Tel° 32-65-78 61 85

B 2 Mme. A. Machiels, Centre P.M.S., Luikersteenweg 56,
B - 3500 Hasselt. Tel° 32-11-22 17 38

DK 3 H. Bruun, Udskoling- et EF Projekt, Hasserisvej 174,
DK - 9000 Aalborg. Tel° 45-8-11 22 11 Ext. 4170

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